

# D I S K U S

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## **Afterword: Some reflections on numbers in the study of religion**

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### **ABSTRACT**

Religious adherence can and should be quantified, but there are serious problems of validity and reliability in measuring religion. Sometimes the problems themselves are informative about the nature of identity and its significance or insignificance. Understanding the difficulties with numbers helps us to understand religion itself.

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### *Introduction*

The articles in this special issue provide a fascinating glimpse of religion in numbers and the problems and rewards of quantitative research. Our understanding of the issues will benefit from the attention of scholars from a variety of backgrounds.

People see religion in different ways: as a voluntary association (in which membership will lapse unless regularly renewed), as something more like a nationality (which you can have even if you go elsewhere), or simply as an aspect of cultural heritage. So why bother with religious statistics? One reason is that given by Bettina Schmidt in her introduction to this issue: "While we cannot get a clear picture about religious belonging from national census data, we can find out trends about important shifts in the religious landscape."

Critics might argue that religion is too complex to allow one to record and classify identity in a satisfactory way. The need to measure is a strength as well as a weakness, however. While it is certainly true that quantification simplifies what has been observed, these methods force us to be clear about what we are studying. The act of selecting and defining variables imposes a rigour and an openness to criticism that can more easily be escaped in discursive treatments of the same phenomena. Quantification often provides the best or only way of testing theories about the causes and consequences of religious affiliation and involvement. It is the natural perspective to use in discussing trends, and it facilitates international comparisons.

### *Problems of validity and reliability*

Although religious statistics are valuable, they do need careful handling. I have maintained for some years that “a quarter of responses to any question on religion are unreliable” (Voas 2007, p. 149): that is to say, the respondents may give different answers the next time you ask. My jocular claim to this principle as “Voas’s Law” seems incomplete, however. I should have labelled it “Voas’s first law of religious statistics”, because there is also a second law. The second law is that a quarter of responses to any question on religion lack validity: that is to say, the answers do not mean what they appear to mean. The magnitude of the problems with reliability and validity will vary from case to case, of course. Still, a quarter will sometimes be a conservative estimate of the proportion affected.

Schmidt provides some examples: Afro-Brazilian religious practices are commonplace in Brazil, but only a tiny proportion of the population identifies with these traditions on the census. One might argue that there is a comparable situation in Britain with alternative spirituality. I am sceptical about the idea that these beliefs and practices are displacing traditional religion (Voas and Bruce 2007), but they are clearly far more widespread than one might suppose from the census. Only 13,832 people in England and Wales wrote in ‘Spiritual’ on the 2011 census form and the ‘New Age’ count was even more miniscule at 698.

In Great Britain, much of the interest in this topic arose from the contrast between the results of the 2001 census, when a question on religion first appeared, and what was known from sample surveys. The British Social Attitudes survey of 2001 put affiliation with any religion at 58% in England and Wales, a very different result than the 79% (aged 18+) obtained from the census in the same year. Moreover the 2001 census categorized 72% of people in England and Wales but only 65% of those in Scotland as Christian, notwithstanding good evidence that levels of churchgoing were slightly higher north of the border. Subtle differences in the wording and context of questions can have a substantial impact (Voas and Bruce 2004).

Japan provides an extreme example of the uncertainty around religious affiliation. The Religions Yearbook published by the Ministry of Education and Bureau of Statistics shows Shinto totals (based on reports from the shrines) that amount to more than three-quarters of the total population. The Agency of Cultural Affairs states that Shinto is followed by half the population, with many of the same people being adherents of Buddhism. Surveys conducted by private groups, though, typically find that only 2 or 3% of Japanese identify themselves with Shintoism (Voas 2007).

### *Data issues*

When faced with questions about religion, many people are prone to be facetious, idiosyncratic or simply non-compliant. An internet campaign that

swept through all English-speaking countries conducting censuses around 2000-2001 encouraged people to list their religion as 'Jedi Knight'. And we should not underestimate the extent to which many people are indifferent to religion or disinclined to answer questions about it. The attempt to show that Scottish councils engage in sectarian hiring practices (Mejka 2014) is completely undermined by the fact that "the current level of staff designated as 'unknown' in terms of whatever they identify as religion or belief is at 85.59% ... Given that the 'unknowns' vastly outnumber self-identified Catholics and Protestants, the cautious analyst would conclude that such data can tell us nothing at all about local authority hiring policies. All they tell us is that most council workers do not want to declare their religion (or lack of it)" (Bruce, forthcoming 2014).

For some measures of religious affiliation, the very small numbers in certain categories make the data sensitive to coding and similar errors. In Scotland, the published total of people writing in 'another religion' on the 2001 census form was about 27,000. A later, more detailed count (commissioned by the Pagan Federation) revealed that most of those respondents described themselves as Jedi Knights and many of the remainder specified a Christian denomination and so belong in a different category. In fact only 5,400 (or 20% of the number published) genuinely belong to 'another religion', most of them being Pagans or Spiritualists.

Kevin Brice makes use of data on religion of upbringing and current religion from the 2001 census in Scotland (which was discussed, for example, in Voas 2006). He takes the ingenious step of applying this mover-stayer matrix to the 2011 census output from England and Wales. While the method is well worth using, it does seem to me that in statements like "Prior to the Census 2001 ... the only way that a classification by religious affiliation could be obtained was to use simplistic assumptions about religious affiliations based on ethnic groups", Brice ignores the existence and importance of sample surveys. Even now, most of what we know about religion in Britain comes from surveys, not censuses. Surveys cover a wider range of measures of religious involvement and upbringing, not to mention a wider range of attitudinal and socio-demographic background measures. The strengths of the census are very specific, with good data for small areas being one of the most important. The census has generated a great deal of interest among scholars in religious studies, but it is by no means the only game in town.

#### *Noise, churn, measurement artefacts – or real change?*

Often the unreliability is just noise and has no effect on the identification of trends. For example, a comparison of waves 1 and 9 (1991 and 1999) of the British Household Panel Survey shows that the frequency distribution of religious affiliation is utterly static, from which it is tempting to conclude that religious identity is a stable attribute. Closer examination at the individual rather than the aggregate level reveals that a remarkable 27% of respondents interviewed in both surveys supplied different religious labels for themselves at the two dates. No doubt some of those panel members really did change

allegiance (between denominations or between affiliation and no religion), but it is likely that many are simply uncertain or ambivalent. The line between 'C of E' (Church of England) and 'none' can be rather fuzzy. Even in the United States, a substantial number of people go back and forth between stating a religious preference and saying that they have no religion (Lim, MacGregor, and Putnam 2010).

A similar amount of churn can be seen in census data on current religion versus religion of upbringing. As noted by Kevin Brice, the main shifts are from religion to no religion, but there is some movement in the opposite direction. To state, though, that "a simple application of the 'secularisation thesis' does not sufficiently explain actual change of religion in the population" strikes me as unjustified. The secularisation thesis does not predict that no one in modern societies can acquire religion or become more religious: it simply implies that all else being equal the dominant trend will be in the opposite direction, which is what we find.

There are some instances where the sensitivity of responses to the way in which a question is asked overcomes any straightforward interpretation of the data. David Václavík reports a remarkable jump in the number of people in the Czech Republic who declined to answer the census question on religion: the figure went from 9% in 2001 to 45% in 2011. Shifts of this magnitude do not happen by accident, and the wording of the question is automatically suspect in cases like this one. A close examination of the forms confirms that suspicion. In 2001, the question simply presented two tick-boxes: "without denomination" and "believer", followed by space to write in the name of the religious group. In 2011, the statement that the question was voluntary was prominently displayed. Moreover, while the 2001 question merely asked respondents to be specific in writing in their denomination, the 2011 question contained an instruction to write in the name of the denomination as listed in the accompanying guidance notes. It is hardly surprising that a large proportion of people chose abstention as the easier option. I am inclined to agree with Václavík's views on the rise in indifference, but the alteration in the census form makes the interpretation of the data far from clear cut.

A similar example can be found in comparing the 1986 and 1991 results from Australia. In 1986 the question required the religion to be written in, while in 1991 the census form provided tick-boxes for the most common denominations. One striking consequence was that the number of native-born Presbyterians aged 20 and over increased by a third relative to the 1986 total. By implication, a quarter of self-identified Presbyterians in 1991 were so nominal that they would have been unwilling or unable to spell out the name of their denomination. (Catholic, Anglican, and Uniting Church numbers received more modest boosts.)

Likewise Gunnar Thorvaldsen's graph showing the sharp rise in the number of Norwegians with no religion seems very likely to depict not only the inroads of secularization but also the simplification of the census form in 1970, where "Does not belong to any denomination" was one of just three options available to be ticked.

The 1970 British Cohort Study offers a good opportunity to test the consistency of responses to questions on religion for a single cohort over three decades (Voas forthcoming). One striking finding is how unreliable cohort members are in reporting whether they had been raised in a religion. The sweeps in 2004 and 2012, when the respondents were aged 34 and 42, included essentially identical questions on religious upbringing. At the individual level, nearly a quarter (24%) of people changed their answers between the two dates (as shown in the table below and indeed as predicted by Voas's first law). The inconsistency seems astonishing given that respondents were reporting in mid-life on a fixed past rather than a shifting present. The vague recollection may imply that their religious upbringing was weak, or it might simply reflect a lack of clarity in the question. It is not easy to say what is entailed by being raised in a religion.

Furthermore the aggregate responses at the two dates were very different. In total, only 56% in the earlier year said that they had been raised according to a religion, while eight years later the figure was 68%. The explanation is very likely to lie in differences in how the data were collected (or what survey researchers call mode effects). In 2004 the religion questions were asked in a face-to-face interview, whereas in 2012 they appeared on the self-completion form. The earlier version was a two-stage question (first a yes/no filter, then a list of religious groups), and respondents will have learned during the interview that answering 'yes' to such a question would elicit the follow-up 'which?' For anyone hoping to reach the end, answering 'no' would be the more attractive option.

'Thinking first of your childhood, were you raised according to any particular religion?'

Responses in 2004 and 2012 (% of total)

2004 response	2012 response	
	Yes	No
Yes	50	6
No	18	26

N = 6,958

### *Refining the instruments*

Some of the difficulties we encounter may come from the contrast between what is being measured and how it is measured. Religious commitment is a continuous variable. We picture an underlying scale with Richard Dawkins at one end and the Pope at the other; most of the population lies somewhere between the two. The questions we ask on surveys acknowledge this

variability: attendance at services may be anything from 'never' to 'daily', the importance of religion in life will be recorded as a value from 0 to 10, a standard question about belief in God offers half a dozen response categories that express varying degrees of doubt, and so on. Religious identity, however, is typically registered as binary: some religion or no religion. The reality is of course far more complex.

Just as people believe or participate to varying degrees, their religious identities may range from non-existent through nominal to somewhat important to completely central. This sense of identity may derive from one or more of family heritage, ritual initiation, religious upbringing, education, marriage, communal belonging, ethnic assertion, formal membership, religious values, cultural affinity, external perception, or something else. It may emerge more or less strongly in different times and places, and individuals may be more or less ambivalent about the affiliations for which they are eligible. Out of this nuanced and arguably multi-dimensional construct one generates an answer to the question 'what is your religion?'

The General Social Survey in the United States has tried to capture degrees of religious identification since 1974. The standard question about affiliation leads to the follow-up "Would you call yourself a strong X or a not very strong X?", where X is the group chosen. Although the question is posed as a binary choice, answers of "somewhat strong" are coded; about one in ten respondents volunteer this description of their affiliation. There is a limit to the refinement and complexity that can be captured by survey forms, but we do not need to be limited to yes/no questions about religious identity. The distinction between strong and weak identification is arguably more reliable than that between affiliation and outright non-affiliation, and sometimes relative indifference is precisely what is of most interest.

### *Combining quantitative and qualitative data*

We need quantitative data in order to discuss big issues such as the alleged growth in alternative spirituality, the supposed persistence of Christian belief among non-churchgoers, the apparent strength of evangelical and charismatic congregations, the relative religiosity of women, the degree of commitment of young European Muslims, and so on. Unless we are content with guesswork, we have to collect information from representative groups of people through social surveys. Without empirical evidence of this kind, we have nothing but case studies, the representativeness of which would be impossible to judge. Happily, experience shows that we can collect meaningful quantitative data on religious identity, belief and practice. A number of the studies in this issue report on qualitative studies that aimed to elucidate the meaning of quantitative findings.

James Cox and Adam Possamai talked to Aboriginal Australians in order to understand why the 2011 census shows them to be fractionally more non-religious than the general population. As an aside, one might argue about the comparison: while it is true that 'no religion' amounted to 22.3% of the overall

population, it was 24.5% among the native-born. It seems most appropriate to compare Aboriginals to other people born in Australia. In conjunction with the younger age structure of the Aboriginal population and the generational gradient in religious affiliation, Aboriginals are still slightly more likely to have a religion than other Australian-born individuals of the same age. This small quibble does not detract from the interest of the basic finding, however.

What emerges for Cox and Possamai is that Aboriginals are very much like everyone else in their understanding of religion, both in the views expressed and in the variety of those views. The authors conclude that “the concept non-religion has important implications for understanding not only the history of and contemporary movements related to ‘religion and non-religion’ in Western, industrialised societies but equally among indigenous populations.” The question that remains, though, is whether this statement applies only to such populations in modern societies or also to traditional societies. I am highly sympathetic to the arguments advanced in this article, but Aboriginal Australians in the early 21<sup>st</sup> century are well acquainted with Western worldviews.

Simeon Wallis provides some fascinating qualitative material on the views of young adolescents in England who identify with no religion. He writes that the data show “the importance of reflecting on what the term ‘religion’ means to respondents in order to understand why they might claim ‘no religion’”. It would likewise be interesting to hear what it means for respondents who do claim an affiliation; one suspects that in many cases the answers might be much the same. Wallis argues in a footnote that his work does not require a parallel study of ‘religious’ young people, and it is true that his findings are interesting on their own. Nevertheless, the absence of a comparison group makes it harder to know what is distinctive about the non-religious.

#### *Diversity: religious identity and other traits*

Martin Stringer considers the extent to which superdiversity (Vertovec 2007) might help to dissolve the close association between ethnicity, religion, language, national origin and related characteristics. The mutually reinforcing nature of such characteristics arguably tends to generate enclaves and ‘parallel lives’ (Cantle 2008). Stringer’s discussion is insightful and profoundly sensible. He helps us to see that there are two possible components of superdiversity: sheer multiplicity (in particular of national origin) and the potential independence of the various identities. There is no doubting that many more groups are represented now than in the past, but that multiplicity does not seem to have broken the links between (for example) ethnicity and religion.

The census helps us to study ‘the diversity of diversity’, and indeed some years ago I wrote a paper with that very title (Voas and Williamson 2001). In that work, I argued that geodemographic classification (in which areas are pigeonholed into categories such as ‘leafy green suburb’) is misleading because within-group differences are often larger than between-group

differences, and the qualities used to define each class are often only loosely associated with each other. The same argument applies to ethno-religious groups. The critical issue, as Stringer makes plain, is how far and in what circumstances the diversity of diversity trumps the continuing strength of some central identities. He pinpoints the sort of uncertainty that I sense in daily life as a resident of inner London. On the one hand, when I go to the shops or the local gym I am immersed in a multicultural world in which age, gender, personal interests and so on matter more than religion and ethnicity. On the other hand, I am fully conscious that for all the apparent goodwill, many of my neighbours and I do lead fairly separate lives. No doubt some of that differentiation is economic, but cultural divides have clearly not vanished.

Vladislav Serikov also stresses diversity, in this case among German Muslims. Although the Muslim populations of each large European country seem distinctive (being predominantly North African in France, South Asian in Britain, and Turkish in Germany), there is a great deal of heterogeneity in each of these populations, not only in national origin but also in religious commitment. Here the interesting issue is whether the high salience of Islam (both for Muslims and for non-Muslims) will create identities and boundaries that override the internal diversity that clearly exists.

#### *From religion to religiosity and beyond*

The articles in this issue have largely focused on religious self-identification. The problems of reliability and validity are not specific to questions on affiliation, of course. Religiosity (that is to say religious commitment) is possibly even more difficult to measure. Something as apparently objective as attendance at services can be surprisingly difficult to pin down (Hadaway et al. 1993, Hadaway & Marler 2005). Ironically, respondents may persuade themselves that to tell the literal truth about their non-attendance in the past week would mislead the interviewer about what would 'normally' be true. Similarly, the validity of responses on belief often seems open to doubt. We cannot conclude from the fact that people tell pollsters they believe in God or life after death that they give the matter any thought, find it significant, will feel the same next year, or plan to do anything about it. As Wallis points out, some respondents may be so oblivious to matters of religion that the mere act of asking about it may create the opinion that we then record.

It would be easy to become discouraged by these problems. My own view is rather the reverse. The complexity of the topic is precisely what justifies acquiring knowledge. If everything could be taken at face value, there would be no need for scholarship. Census and survey data can tell us an enormous amount about religion and society; we just need to deploy the appropriate blend of scepticism and sophistication in handling the numbers. It is good to see how much is being done.

## References

- Bruce, S. (forthcoming 2014) 'Sectarian discrimination in local councils and myth-making'. *Scottish Affairs* 23(4).
- Cantle, T. (2008) *Community cohesion, a new framework for race and diversity*, second edition. Basingstoke: Palgrave Macmillan.
- Hadaway, C. K. and P. L. Marler. (2005) 'How many Americans attend worship each week? An alternative approach to measurement'. *Journal for the Scientific Study of Religion* 44(3), pp. 307-22.
- Hadaway, C. K., P. L. Marler, and M. Chaves. (1993) 'What the polls don't show: A closer look at US church attendance'. *American Sociological Review* 58(6), pp. 741-52.
- Lim, C., C. A. MacGregor, and R. D. Putnam. (2010) 'Secular and liminal: Discovering heterogeneity among religious nones'. *Journal for the Scientific Study of Religion* 49(4), pp. 596-618.
- Mejka, W. (2014) *Catholics, work and local authorities in Scotland*. Edinburgh: Equality Here, Now.
- Vertovec, S. (2007) 'Super-diversity and its implications'. *Ethnic and Racial Studies* 30(6), pp. 1024-54.
- Voas, D. (2006) 'Religious decline in Scotland: New evidence on timing and spatial patterns'. *Journal for the Scientific Study of Religion* 45(1), pp. 107-18.
- Voas, D. (2007) 'Surveys of behaviour, beliefs and affiliation', in Beckford, J. and Demerath, N.J. (eds.) *Handbook of the Sociology of Religion*, Sage, pp. 128-50.
- Voas, D. (Forthcoming) 'The mysteries of religion and the lifecourse'. *Longitudinal and Life Course Studies*.
- Voas, D. & S. Bruce. (2004) 'The 2001 census and Christian identification in Britain'. *Journal of Contemporary Religion* 19(1), pp. 23-8.
- Voas, D. and S. Bruce. (2007) 'The Spiritual Revolution: Another false dawn for the sacred' in Flanagan, K. and Jupp, P. (eds.) *A Sociology of Spirituality*, London: Ashgate, pp. 43-62.
- Voas, D. and P. Williamson. (2001) 'The diversity of diversity: A critique of geodemographic classification'. *Area* 33(1), pp. 63-76.